



Faculty of Applied and Creative Arts

**MOBILE APPLICATION FOR BACKPACKERS / BUDGET
TRAVELERS IN KUCHING**

Viviana Rinai Danyin

Bachelor of Applied Arts with Honours
(Design Technology)
2015

MOBILE APPLICATION FOR BACKPACKERS / BUDGET TRAVELERS IN KUCHING

VIVIANA RINAI DANYIN

This project is submitted in partial fulfillment of
the requirements for the degree of Bachelor of Applied Arts with Honours
(Design Technology)

Faculty of Applied and Creative Arts
UNIVERSITI MALAYSIA SARAWAK
2015

UNIVERSITI MALAYSIA SARAWAK

Grade: _____

Please tick (✓)

Final Year Project Report ☒

Masters ☐

PhD ☐

DECLARATION OF ORIGINAL WORK

This declaration is made on theday of **June** 2015.

Student's Declaration:

I **Viviana Rinai Danyin, 39253, Faculty of Applied and Creative Arts** hereby declare that the work entitled, **Mobile Application for Backpackers / Budget Travelers in Kuching** is my original work. I have not copied from any other students' work or from any other sources except where due reference or acknowledgement is made explicitly in the text, nor has any part been written for me by another person.

Date

Viviana Rinai Danyin (39253)

Supervisor's Declaration:

I **Miss Salmiah Andul Hamid**, hereby certify that the work entitled **Mobile Application for Backpackers / Budget Travelers in Kuching** was prepared by the above named student, and was submitted to the "FACULTY" as a * partial/full fulfilment for the conferment of **Bachelor of Applied Arts with Honours (Design Technology)**, and the aforementioned work, to the best of my knowledge, is the said student's work

Received for examination by: _____
(Miss Salmiah Abdul Hamid)

Date: _____

I declare this Project/Thesis is classified as (Please tick (√)):

- ☐ **CONFIDENTIAL** (Contains confidential information under the Official Secret Act 1972)*
- ☐ **RESTRICTED** (Contains restricted information as specified by the organization where research was done)*
- ☒ **OPEN ACCESS**

Validation of Project/Thesis

I therefore duly affirmed with free consent and willingness declared that this said Project/Thesis shall be placed officially in the Centre for Academic Information Services with the abide interest and rights as follows:

- This Project/Thesis is the sole legal property of Universiti Malaysia Sarawak (UNIMAS).
- The Centre for Academic Information Services has the lawful right to make copies for the purpose of academic and research only and not for other purpose.
- The Centre for Academic Information Services has the lawful right to digitize the content to for the Local Content Database.
- The Centre for Academic Information Services has the lawful right to make copies of the Project/Thesis for academic exchange between Higher Learning Institute.
- No dispute or any claim shall arise from the student himself/herself neither third party on this Project/Thesis once it becomes sole property of UNIMAS.
- This Project/Thesis or any material, data and information related to it shall not be distributed, published or disclosed to any party by the student except with UNIMAS permission.

Student's signature _____
()

Supervisor's signature: _____
()

Current Address:
No.36, 1KM Airport Road, Lai Pau Garden,
98000 Miri, Sarawak.

Notes: * If the Project/Thesis is **CONFIDENTIAL** or **RESTRICTED**, please attach together as annexure a letter from the organization with the period and reasons of confidentiality and restriction.

[The instrument was duly prepared The Centre for Academic Information Services]

The project entitled **Mobile Application for Backpackers / Budget Travelers in Kuching** was prepared by **Viviana Rinai Danyin** and submitted to the Faculty of Applied and Creative Arts in partial fulfillment of the requirements for a Bachelor of Applied Arts with Honours (**Design Technology**).

Received for examination by:

(Miss Salmiah Abdul Hamid)

Date:

ACKNOWLEDGEMENT

First and foremost, thanks to god for blessing me with determination, perseverance and love in getting this project done. Thanks to my family especially my grandparents and mom for their financial, moral support and undying love. I would also like to thank my supervisor, Miss Salmiah Abdul Hamid for her guidance and advice. Also, thanks to all the graphic lecturers, Dr. Mastika, Mr. Sylvester, Miss Haslina, Mr. Louis, and Dr. Siti for their advice during my Final Year Project. Last but not least, to my friends who were there for their guidance, help and moral support that they have given me all the way until now.

CONTENTS

	Page
DECLARATION	ii
VALIDATION	iii
ACKNOWLEDGEMENT	v
LIST OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	ix
LIST OF IMAGES	ix
ABSTRACT	x
CHAPTER 1 INTRODUCTION	1
1.0 Background	1
1.1 Problem Statement	5
1.2 Research Questions	5
1.3 Research Objectives	6
1.4 Research Scope	6
1.5 Target Audience	7
1.6 Media	7
1.7 SWOT	8
1.8 Definition of the Terms	9
1.8.1 Application	9

1.8.2	Interactive	9
1.8.3	Visual	9
1.8.4	Budget Travelers	9
1.8.5	Usability	10
1.9	Conclusion	10
CHAPTER 2	LITERATURE REVIEW	11
2.0	Introduction	11
2.1	Multimedia	11
2.2	Mobile Devices	12
2.3	Tourism Industry	13
2.4	User Experience	15
2.5	Methods of Investigation on User Experience	16
CHAPTER 3	METHODOLOGY	18
3.0	Introduction	18
3.1	Research Design	18
3.2	Sampling Design	20
3.3	Data Collection Technique	20
3.4	Data Analysis Method	21
3.5	Conclusion	22

CHAPTER 4	FINDINGS & DATA ANALYSIS	23
4.0	Introduction	23
4.1	Survey Results	24
	Part 1: Demographic Profiles	24
	Part 2: General	26
	Part 3: Perception of the Respondents	28
4.2	Visual Analysis	33
4.3	Summary	35
CHAPTER 5	RECOMMENDATION	36
5.0	Introduction	36
5.1	Icon Design	37
5.2	Interface Design	39
5.3	Icon Design (Features)	40
CHAPTER 6	DISCUSSION & CONCLUSION	41
REFERENCES		43
APPENDICES		46
	Appendix A: Survey Questionnaire	
	Appendix B: Interface Design	
	Appendix C: Leaflets Design	
	Appendix D: Colour Code	
	Appendix E: Application Information (Magazine)	
	Appendix F: Poster	
	Appendix G: Sitemap	

LIST OF TABLES

Tables No.		Page
Table 4.1	Response Rate for Usability Test	28
Table 4.2	Response Rate for Graphic User Interface	30
Table 4.3	Response Rate for User Experience	31
Table 4.4	Visual Analysis	33

LIST OF FIGURES

Figures No.		Page
Figure 4.1	Gender	24
Figure 4.2	Age	25
Figure 4.3	Type of Mobile Phones	26
Figure 4.4	Information	27
Figure 4.5	Usability	29
Figure 4.6	Graphic User Interface	30
Figure 4.7	User Experience	32

LIST OF IMAGES

Images No.		Page
Images 5.1	Proposed Icon 1	37
Images 5.2	Proposed Icon 2	37
Images 5.3	Proposed Icon 3	37
Images 5.4	Proposed Icon 4	37
Images 5.5	Icon (Final)	38
Images 5.6	Interface Design	39
Images 5.7	Icon Design for Features	40

ABSTRACT

This project focuses on user-friendly interactive visual mobile application for independent foreign and local backpackers to visit Kuching, Sarawak. The backpackers also include budget travelers who travel with minimal financial resources and love to experience the culture and heritage of Kuching city. This project emphasizes on the Graphic User Interface (GUI) of a Kuching Backpackers mobile application that integrates contemporary look with Sarawak's cultural influence. Among the features contained in this application is the location of accommodation and dining options available around Kuching. This project is inspired by the increasing use of technology in smart phone applications nowadays.

ABSTRAK

Projek Penyelidikan ini adalah berkaitan aplikasi pintar untuk pengembara dalam dan luar negara bagi memudahkan mereka dalam mengeksplorasi Bandar Kuching. Pengembara juga merangkumi pengembara yang melancong dengan sumber kewangan yang minimum dan suka untuk menyelami budaya dan warisan di bandar Kuching. Projek ini memberi penekanan kepada *Graphic User Interface* (GUI) sebuah aplikasi mudah alih Kuching *Backpackers* yang menyepadukan rupa kontemporari dengan pengaruh budaya Sarawak. Antara ciri-ciri yang terdapat dalam aplikasi ini adalah lokasi tempat penginapan dan tempat makan yang terdapat di sekitar Kuching. Inspirasi projek ini adalah melalui peningkatan penggunaan teknologi dalam aplikasi telefon pintar yang semakin meningkat.

CHAPTER 1

INTRODUCTION

1.0 Background

Nowadays when people rely on technologies and gadgets, the demand of the interactive media, multimedia and any application is highly required because it is essential. One of the interactive medium is mobile application. At the present time, a mobile phone or a gadget is a necessity rather than a need in this modern day. Any application that is created will help the user for their convenience. Interactive visual represents an information structures within a computer which enable users to efficiently process vast amounts of information. The term “app” is the term for “application software”. According to the technology columnist in 2009, David Pogue said that newer smart phones could be nicknamed “app phones” to distinguish them from earlier less-sophisticated smart phones. Apps began to appear in 2008 and are operated by the owner operating system such as Apple App Store, Google Play and Blackberry App World. Certain apps are free while others are paid apps. They are usually downloaded from the platform to a target device such as iPhone, BlackBerry and Android but also can be downloaded to laptop or computers.

Visual relate to sight and the things that we can see. It is something such as a picture or a piece of film that is used to show or explain something. The human brain mostly responds more effectively to visual information and ending with recommendations for how to get started.

The term “Rich Media” is synonymous for interactive multimedia. Interactive can be a computer program, a device and a game which are responses to a user’s action or request depending on where in the program the user initiated the action. Nowadays, web is the most interactive medium and a platform that is being used around the world. In interactive and visual design, combination of inventiveness, creativity, technology, and communication are part of a suite of design disciplines fundamental. The combination of strong visual communication with a detailed understanding of interactivity as a design resource ensures the user gets to understand the information given.

Interactive media usually refers to products and services on digital computer based systems which respond to the user’s actions by presenting content such as text, graphics, animation, video, audio, games and others. It is related to the concepts of interaction design, new media, interactivity and human computer interaction (Márta Turcsányi). According to Markus (1987), interactive media have two characteristics that are not shared by many other innovations. First, widespread usage creates universal access, a public good that individuals cannot be prevented from enjoying even if they have not contributed to it. Second, use of interactive media entails reciprocal interdependence, in which earlier users are influenced by later users as well as vice versa. Consequently, interactive media are extremely vulnerable to start-up problems and discontinuance (Markus, 1987). Interactive media is not only related to digital media or electronic media. Pop-up books, board games, game books, flip books are printed interactive media. For example, books with a simple index may be considered interactive due to the non-linear control in the medium but usually considered non-interactive since the user experience is non-interactive reading.

Multimedia is a content that uses a combination of different content forms. Multimedia includes a combination of text, still images, audio, animation, video or interactivity content forms. It is usually recorded and played, displayed or accessed by information content processing devices such as electronic devices and computerized and can be part of live performance. Multimedia devices are electronic media devices used to store and experience multimedia content. Multimedia can be divided into two which is linear and non-linear categories. Linear active content progresses often without any navigational control for the viewer for example a cinema presentation. A video game is non linear and uses interactivity to control progress. Other than that, multimedia presentations can be live or recorded and it's allowed interactivity via a navigation system. A live multimedia allow interactivity via an interaction with the presenter or performer.

During the last three decades, backpacking has become a mainstream global phenomenon, and backpackers have been considered the model of the postmodern traveler (Richards & Wilson, 2004a). Several factors that have contributed to the large growth of both the diversity and number of backpacker travelers include the increasing ease of international travel, large networks of budget accommodations, and tour operators targeting the travel market segment. Further contributing to the growth are technological innovations, especially in terms of communications and media. The term backpacker has been widely used to describe a heterogeneous segment of tourists, and while it is a generalized term, it does represent a group that has had a strong and expanding economic impact. It has been pointed out that the economic impact of the backpacker market is not at its full realization, in part due to the negative misconception by some tourism planners and policy makers about the benefits the backpacker market can bring to a destination (Richards & Wilson, 2004).

In Australia, the term backpacker is widely used to describe young budget travelers on extended holiday (Murphy, 2010). They generally travel for a longer trips or period of time than other tourists and tend to travel in several different countries during their time away. Backpacking is a form of travel to experience adventures and learn about the local culture, far from typical tourist paths which can be described as independent and low budget way of travelling. Backpacking is an outdoor pastime which is popular in many parts of the world. They typically require a great deal of strength and endurance. Pack light is the most important for the backpacker. It is impossible to walk a long distances with a rolling suitcase and a bulky carry-on bag. By lightening the load, backpacker can avoid those extra baggage fees for checked luggage.

Before go for any trip, backpackers or budget travelers would arrange all the pre-trip details. They have to organize and list down things to do because the trip will cost money. Backpackers and budget travelers definitely won't move around to any places without any travel advisor with them because they will be going to the place that they are not familiar with. Any backpackers and budget travelers willing to buy the travel advisor book about the place that they will travel even though it is quite expensive in order to get the right route. It is a guide for them when enter or go to a new place to gain more experience.

This study is conducted to research about the interactive visual and application for the budget travelers and backpackers. The research will analyze the application that helps the backpackers to identify potential places to visit and also affordable accommodations especially in Kuching area. Besides that, this study is conducted to create suitable user experience and user interface for the budget travelers using a medium which is the mobile application. The research on guidance in the application will focus on the places to visit and accommodations in order to

guide the budget travelers and backpackers so that they will fully experience and immerses themselves in the culture of Kuching, Sarawak.

1.1 Problem Statement

Nowadays, Malaysia has become one of a tourism spot for foreign visitors especially backpackers who are also known as budget travelers. The backpackers normally love to experience and explore the local culture and adventurous places. Since technology has become one of a basic need for travelers, mobile applications have become increasingly important. Thus, mobile application for tourism has become a useful tourism guide for all new travelers. However, there is still lack of mobile application specifically designed for backpackers that focuses on backpackers' needs such as budget accommodations or low cost local food places especially in Kuching, Sarawak.

1.2 Research questions

1. How does an application help budget travelers and backpackers?
2. What is the characteristic of interactive multimedia when it is being applied in the backpacker and budget traveler's application software?
3. What method can guide backpackers and budget travelers to experience life in Kuching?

1.3 Research objectives

1. To identify the effects of mobile apps as part of budget travelers needs
2. To analyze the relationship between user experience and usability in affecting backpacker and budget traveler's application
3. To create an application to guide the backpackers and budget travelers

1.4 Research Scope

For my research scope, I will divide it into three scopes which are the people, apps and also places in Kuching. I have to study about what are their common practices especially for the backpackers and budget travelers. I also have to study on the available mobile application and make comparison among the related application in terms of the typefaces, layouts and the features itself. I also have to find interesting places in Kuching to recommend it to the travelers that will come to Kuching and want to know more about local culture.

1.5 Target Audience

The target audiences for this study are backpackers and budget travellers who travel with minimal financial and love to experience the culture and heritage of Kuching. This application will help the backpackers to identify potential places to visit and also affordable accommodations especially in Kuching area.

1.6 Media

In this modern day, hand phone or mobile phone is a necessity device in our daily use. Nowadays, everybody can buy a mobile phone as it has been an affordable gadget for everybody. We can see even children also can be seen with hand phone. With the gadget technology nowadays, mobile phones are already have the capabilities of built-in camera, a video and even internet in hands. This is easy to capture, download and access to the internet to interact with friends in any social media applications. Mobile apps which is a term used to describe internet application that run on smart phones and other mobile devices by connecting them to internet.

A mobile application is a computer program designed to run on smart phones, tablet computers and other mobile devices. It is actually offered for general productivity and information retrieval including email, calendar, contacts and weather information. The popularity of mobile apps has continued increase because of the public demand and availability of developer tools into other categories such as GPS, banking, mobile games and other applications.

Therefore, this research is purposely to create an application to guide the backpackers and budget travelers using effective medium which is mobile application. In the application, the user can look for interesting places to explore and others features that can help if any problem occurs.

1.7 SWOT

The strength for this application is that it can be use for travelers to find and experience Sarawak especially in Kuching. The travelers can explore the local culture in Kuching. It is especially created for independent tourist which will stay long and with minimal finances.

The weakness that occurs is that the application is use only in Kuching area. With this limitation, it won't be used in any other places.

The opportunity for this application is to attract other user to use the mobile apps while in Kuching. The user can experience and explore more about places in Kuching because the mobile application is only in Kuching area. It is actually to guide the user that is their first time visiting Kuching, Sarawak.

The threat for the application will be compared to other application that has been developed. It is because there is other travel application with their different features, typefaces and also the layout itself.

1.8 Definition of the terms

1.8.1 Application

The definition of the term for application is that application is a program or piece of software designed to fulfill a particular purpose. It is also a database application.

1.8.2 Interactive

Interactive is the interaction of two people or things. It allows a two way flow of information between a computer and a computer user and also responding to a user's input.

1.8.3 Visual

As for the visual, it relates with seeing or sight. It is something such as a picture or a piece of film that is used to show or explain something. The human brain mostly responds more effectively to visual information and ending with recommendations for how to get started.

1.8.4 Budget Travelers

Budget travelers that travel with minimal finances will look for affordable place to stay. A budget is an estimation of the revenue and expenses over a specified future period of time. Therefore, a budget also can be made for a person, family, group of people,

business, government, country, multinational organization or just anything else that makes a spends money. It is a microeconomic concept that shows the tradeoff made when one good is exchanged for another. And also, traveler is a person who is travelling or who often travels.

1.8.5 Usability

As for the usability, it is a progress of making products and systems easier to use and matching them more closely to user needs and requirements. It is also the extent to which a product can be used by specific users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

1.9 Conclusion

This mobile application project is proposed to help and guide backpackers (mostly independent travelers) in Kuching Area. The user of the applications can search for the suitable place and experience the local culture and can travel to place that have been recommended in the application.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Interactive media usually refers to products and services on digital computer based systems which respond to the user's actions by presenting content such as text, graphics, animation, video, audio, games and others. According to Slawson (1993) interactive media is defined as Hypermedia. Interactive media are also known as intermedia, cybermedia, ultimedia, supermedia, and digital media. This kind of technology has become useful in giving information display such as automated bank tellers, entertainment in computer games, also in education and training. In a business world, multimedia has become a word for what used to be called an audio-visual presentation.

2.1 Multimedia

Multimedia describes the use of a personal computer to compose, display and manipulate a variety of electronic media simultaneously, combining elements of text and speech, music and sound, still-images, motion video and animated graphics. The term interactive suggests the ability of the reader to control or modify the sequence and structure of experience in the electronic media environment (Slawson, 1993).

Interactive multimedia is being widely explored in colleges and universities across the country and is touted as "highly effective in terms of learning outcomes and student satisfaction" (Kearsley, 1992, p. 107). One apparent reason for its enthusiastic reception is that interactive multimedia answers today's demand for an instructional methodology in which students are actively involved in the learning process (Gregory, 1995). Unlike earlier computer assisted instruction models which were directed at modifying users' behaviour to achieve predictable outcomes, newer cognitive based approaches, such as interactive multimedia, seek to actively engage and motivate the learner so that content will be internalized. Another reason for its acceptance is that interactive multimedia programs are designed to work the way people think. The literature is full of parallels between the representational architecture of interactive multimedia programs and human memory (Borsook & Higginbotham-Wheat, 1992; Jones, 1990; Nelson & Palumbo, 1992).

2.2 Mobile Devices

Mobile devices are becoming exceedingly important as platforms for Internet applications. With the recent and fast developments in technology, mobile devices offer many advanced services rather than making calls and text messaging. Tourism and travelling is one of the areas that users can benefit from mobile applications. The ICT industry has started to focus on creating tools to help travelers and backpackers to move evenly in new environments because the common usage of mobile phone nowadays. (Awan et al., 2014). There are number of mobile